

**Notice of Allowability**

Application No.

09/911,851

Examiner

Jean E Lesperance

Applicant(s)

KIM, HAK SU

Art Unit

2674

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/12/2004.
2. ☒ The allowed claim(s) is/are 1,5,6,21-23 and 25-33 renumbered as 1-15.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 8.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Henry N. Tran*

**HENRY N. TRAN  
PRIMARY EXAMINER**

## DETAILED ACTION

### ***Allowable Subject Matter***

Claims 1, 5, 6, 21-23, and 25-33 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a driving circuit for a display device. Independent claim 1 identifies a uniquely distinct feature "a first capacitor connected with the input terminal in parallel to reduce fluctuation of the input voltage; a second capacitor connected with the output terminal in parallel to reduce fluctuation of the controlled DC voltage; an inductor connected in series between the input terminal and the output terminal, for maintaining the external voltage applied to the DC-DC converter for a predetermined time; and a diode connected in series between the input terminal and the output terminal, for reducing a backward current from occurring". Independent claim 5 identifies a uniquely distinct feature "a resistor connected with an output terminal of the DC-DC converter in parallel and with an output terminal of the impedance generating unit in series; and a voltage control unit receiving a feedback value of the controlled DC voltage distributed by the impedance value output from the impedance generating unit and a value of the resistor, and then outputting a DC voltage controlled according to the feedback voltage". Independent claim 23 identifies a uniquely distinct feature "a voltage control unit having an input terminal that receives the external voltage, an output terminal, and a feedback terminal; and a feedback circuit to couple the output terminal and the feedback terminal, to control the feedback signal according

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to the timing control signal". Independent claim 26 identifies a uniquely distinct feature "a mode control unit that receives the timing control signal, wherein the controlled DC voltage can be generated by the DC-DC converter for a plurality of modes according to a feedback signal received at the feedback terminal that corresponds to a voltage control signal output by the mode control signal unit". Independent claim 29 identifies a uniquely distinct feature "mode control means for outputting a voltage control signal in response to the timing control signal from the timing means, resistance means coupled to an output terminal of the DC-DC converter for distributing the controlled DC voltage, and voltage control means for receiving a feedback voltage of the controlled DC voltage distributed by the resistance means responsive to the voltage control signal of the mode control means, and then outputting the DC voltage controlled according to the feedback voltage".

The closest art, Moore et al. and Tsuda et al., as discussed above, either singularly or in combination, fail to anticipate or render the above limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (703) 308-6413. The examiner can normally be reached on from Monday to Friday between 8:00AM and 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

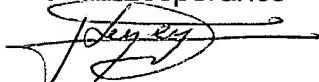
**or faxed to:**

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



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Date 11-16-2004

  
HENRY N. TRAN  
PRIMARY EXAMINER